

**Unknown
powder**

Scheme for identification of powder

I- Observe the color

Orange red powder



Capsicum

Reddish brown



Nutmeg

Grey



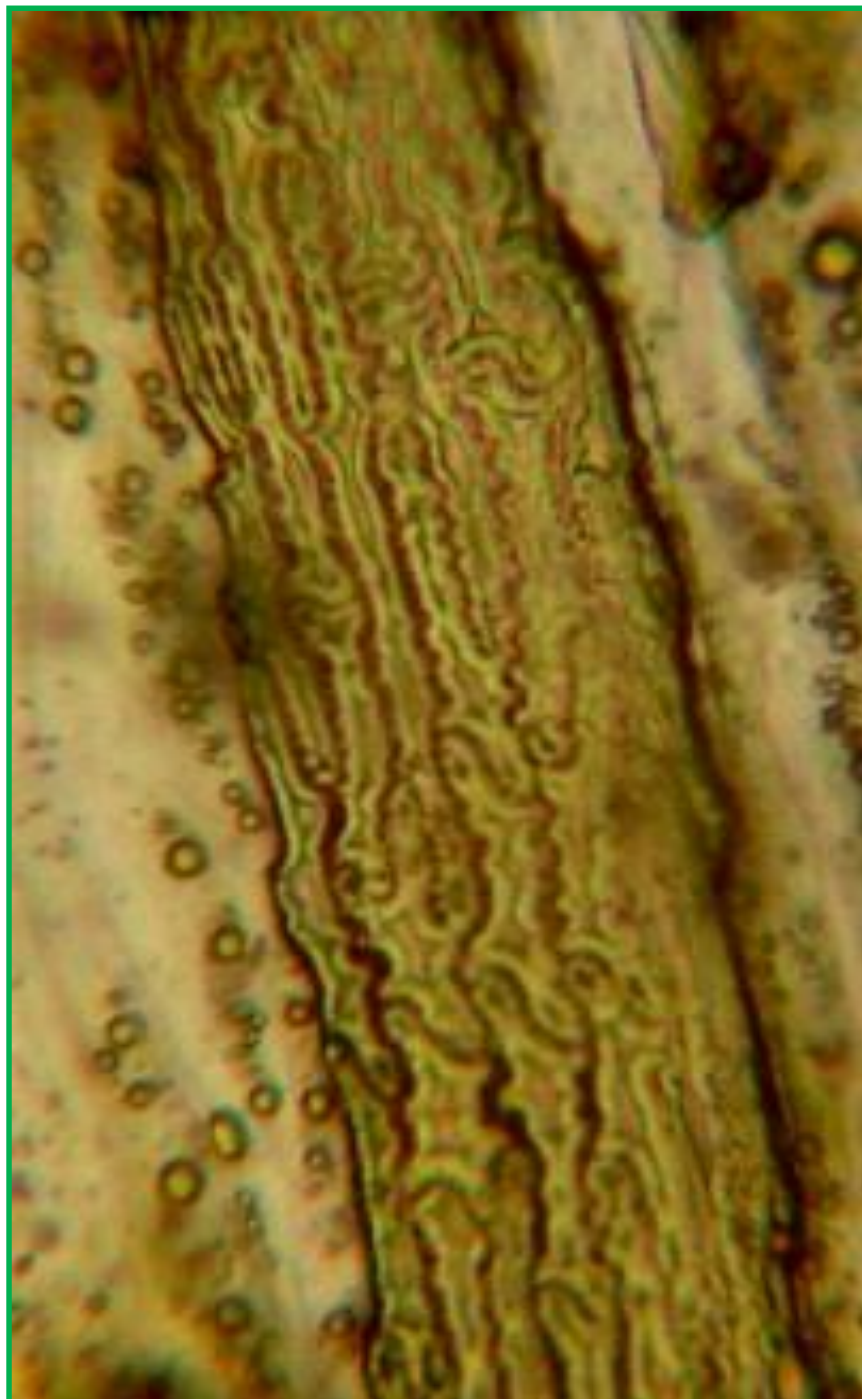
Nux vomica

- **Orange red color**
- **Fiery pungent taste**
- **pd + KOH, boil**

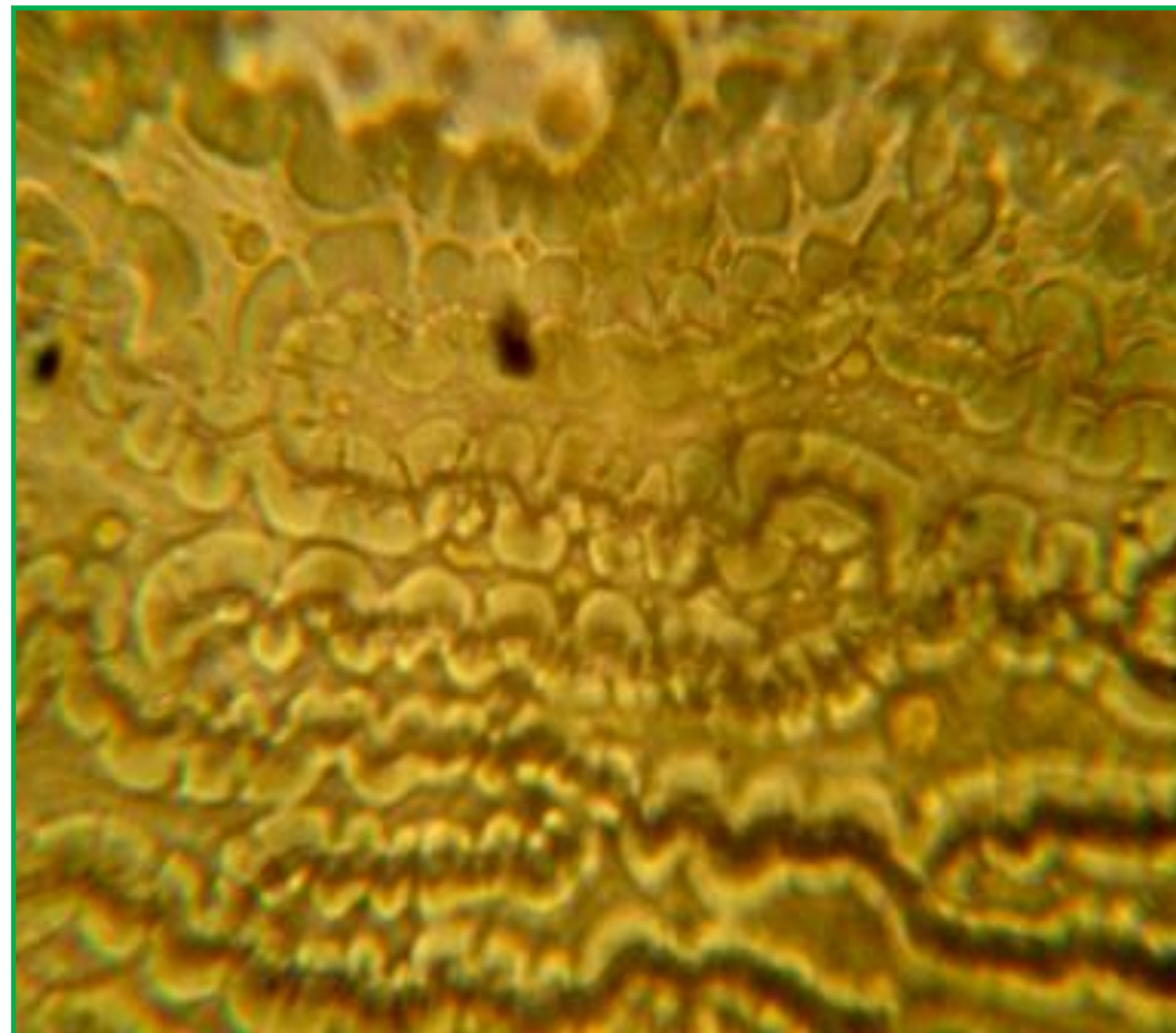


Sclereids of Endocarp**

Seed coat



Low power



High power

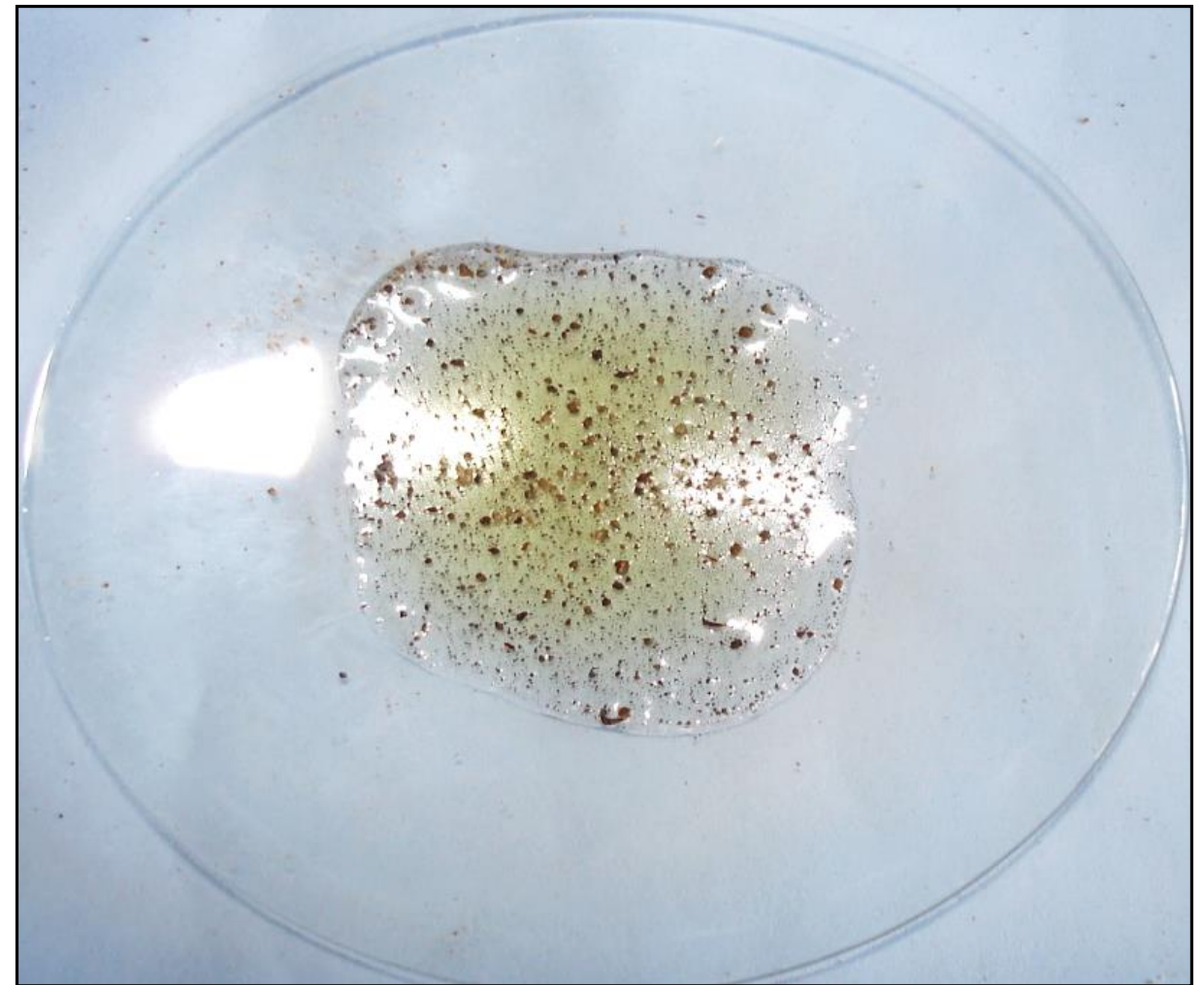


Capsicum

- **Reddish brown powder**
- 2 dps dil I_2 on slide, Sprinkle the pd, examine under microscope dark blue granules (**starch**)
- Pd + Sudan III $\longrightarrow$ Red globules



Reddish brown



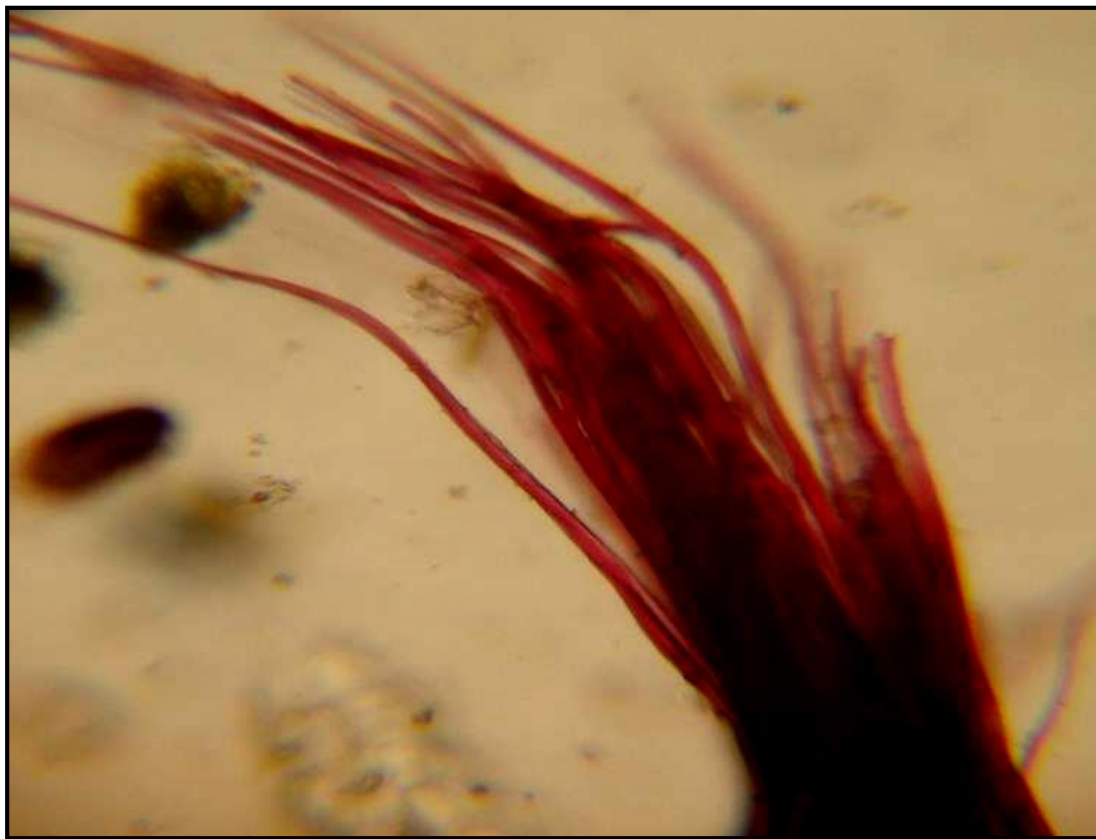
Nutmeg

Grey powder

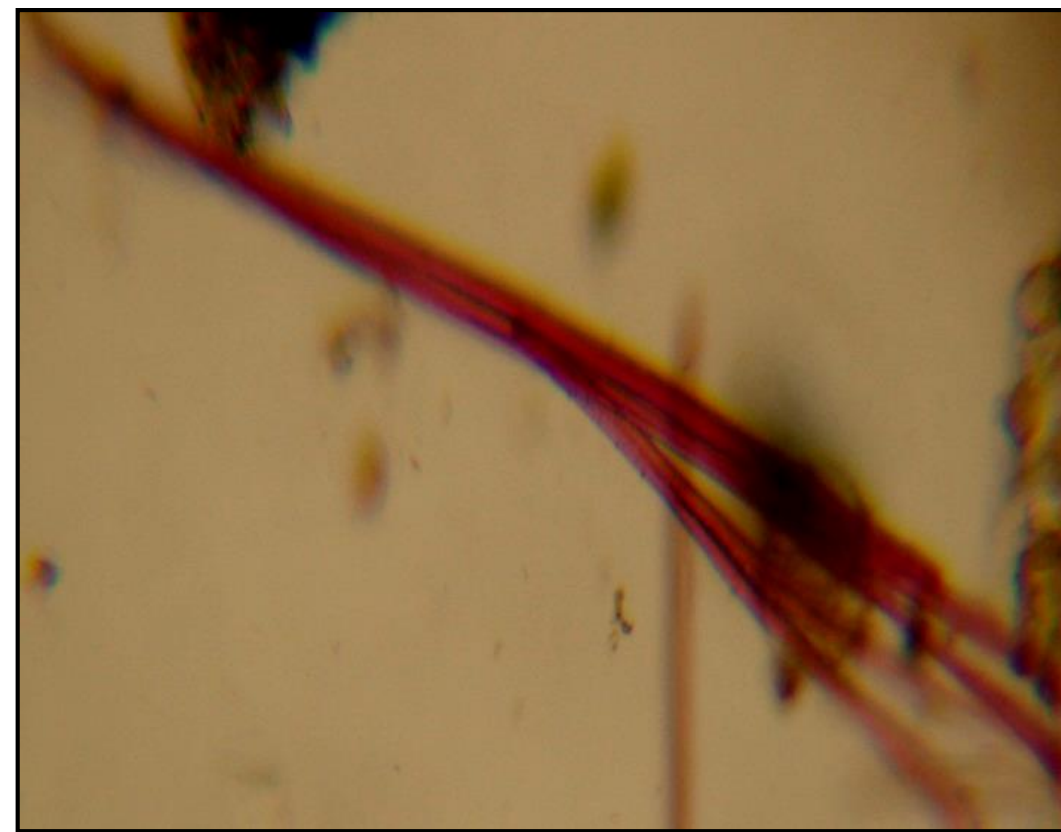
pd + phloroglucin + conc HCL gives Red color macroscopically



- **Examine under microscope**



Epidermal cells



Lignified ribs

Nux vomica

II- pd + KOH, boil

Red color

***May be (senna)**

No Red color

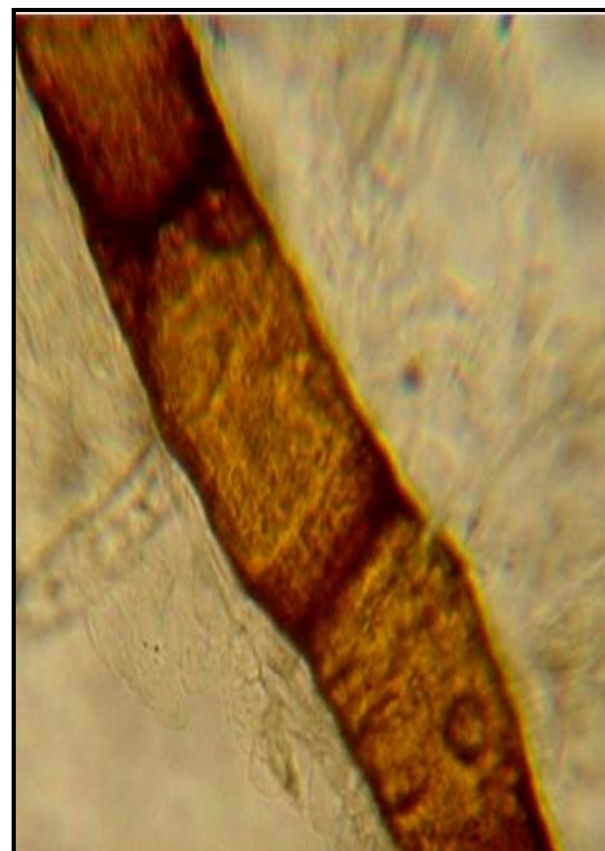
Search for vittae

Vittae

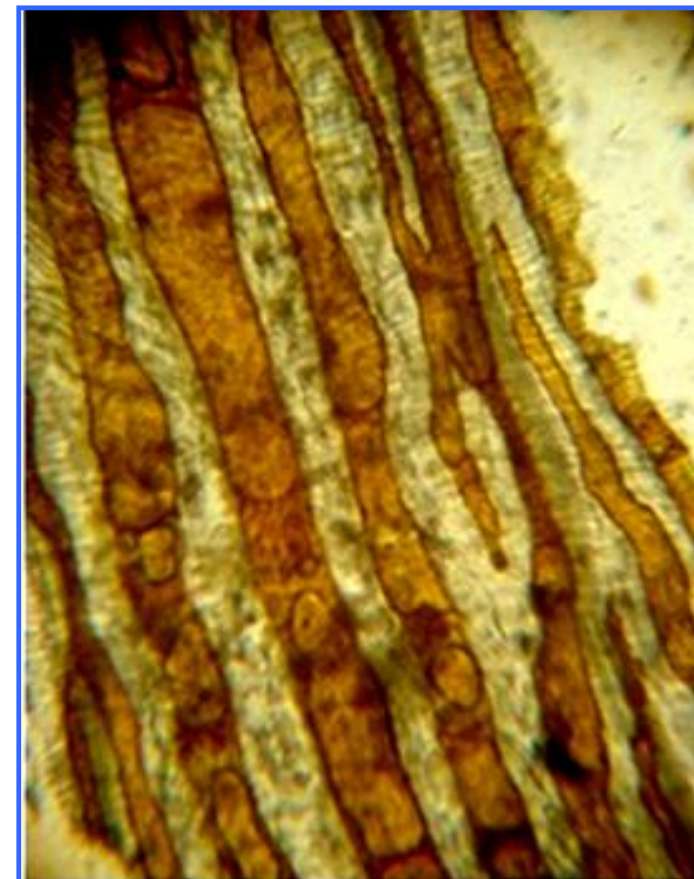
Simple

Branched

No vittae

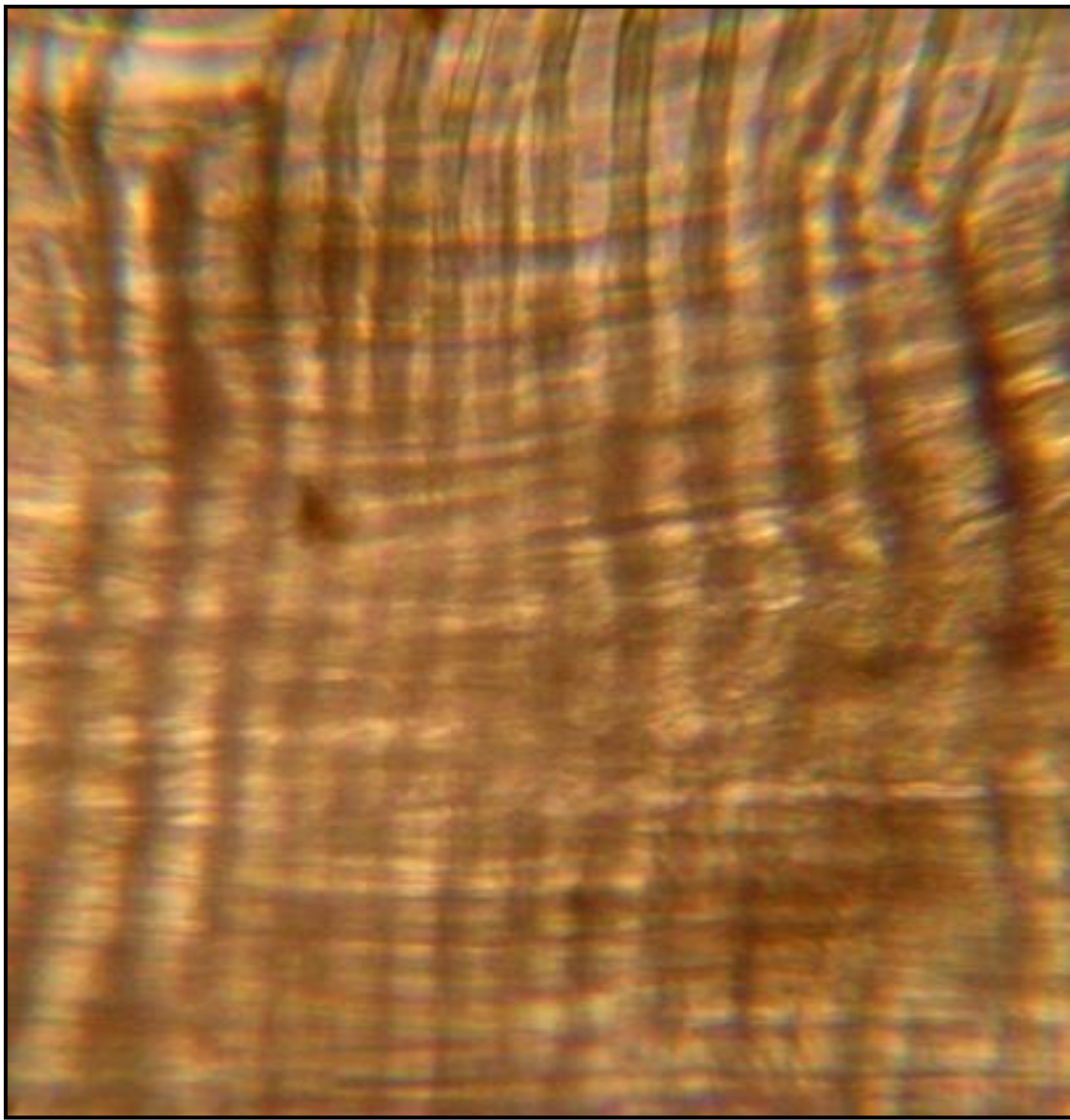


(Coriander)
(Ammi visnaga)
(Fennel)



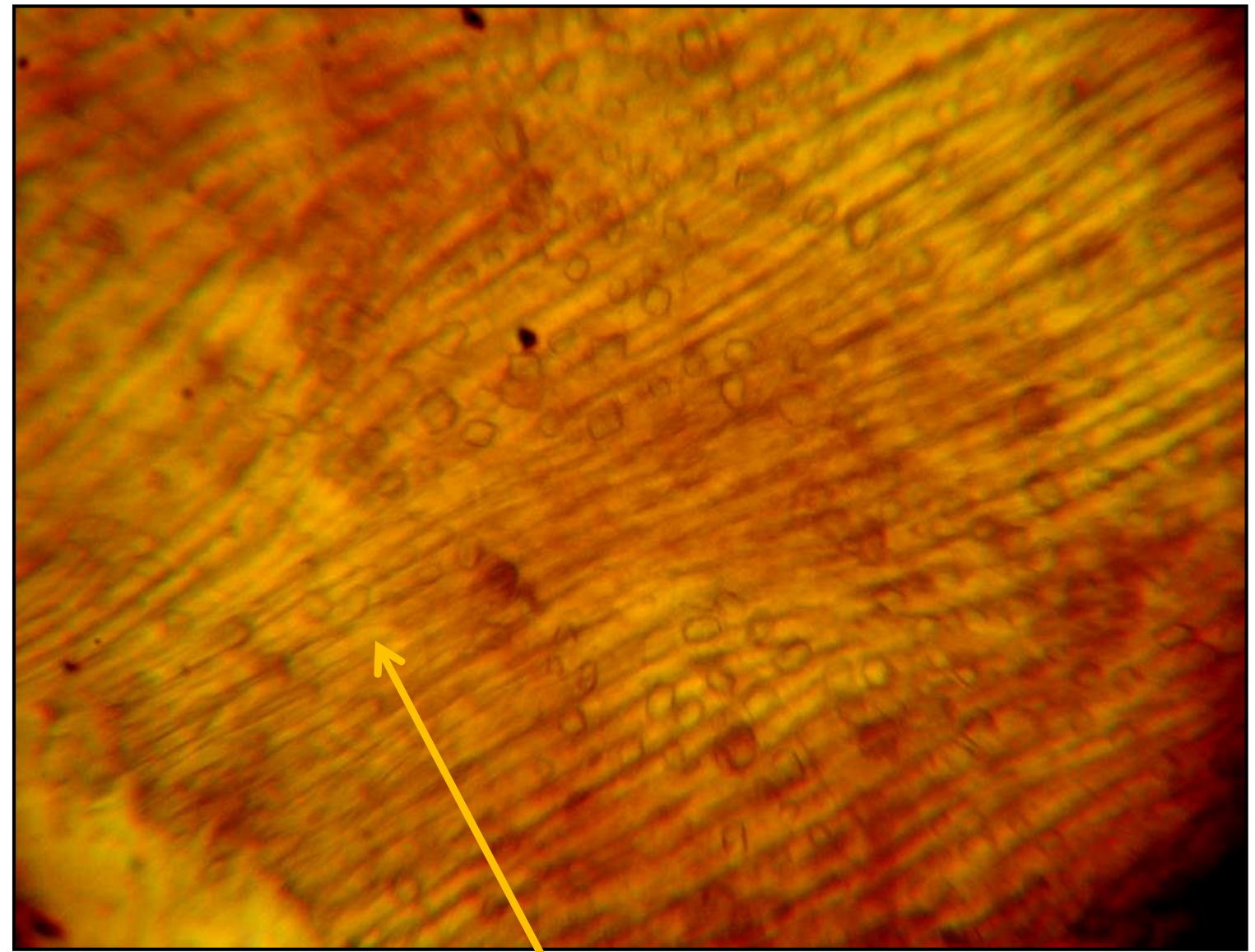
(Anise)

a- Psyllium
b- Black mustard
c- Linseed
d- Foenugreek



Crossed fiber

High power



Prism of ca.ox



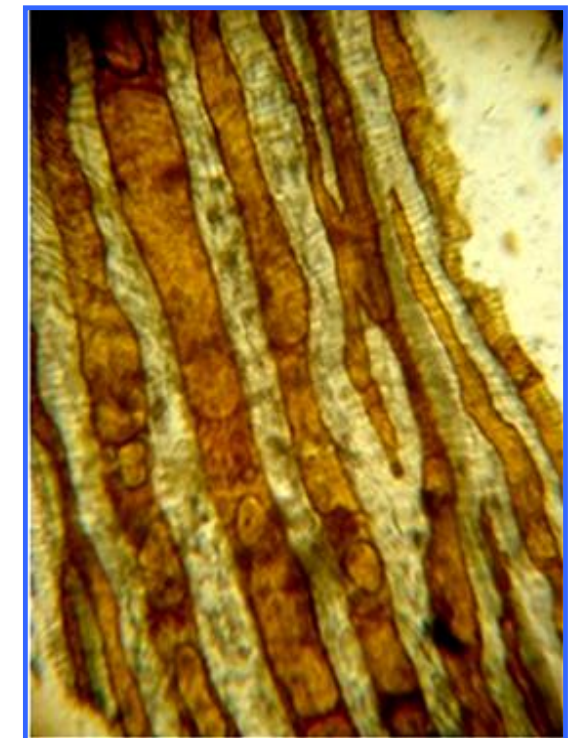
Hair

Senna

Simple

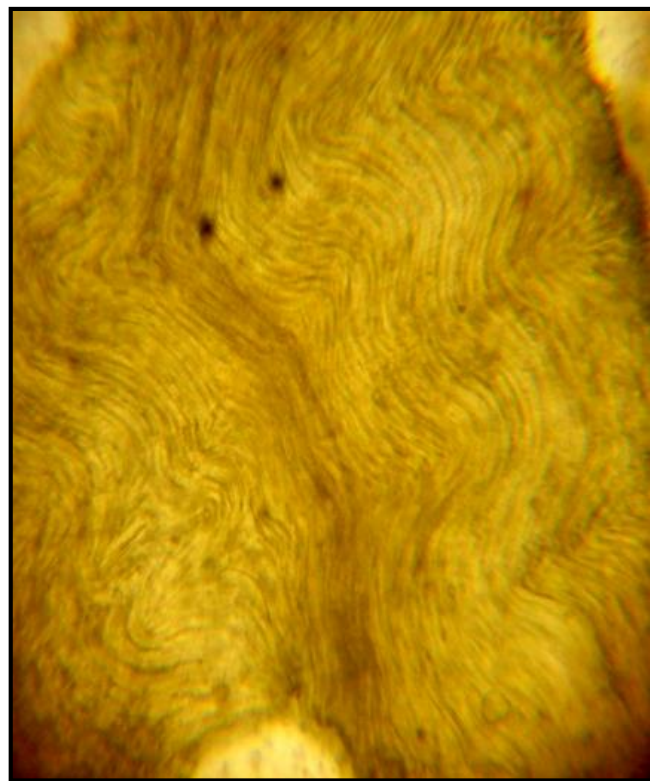
Vittae present

Branched

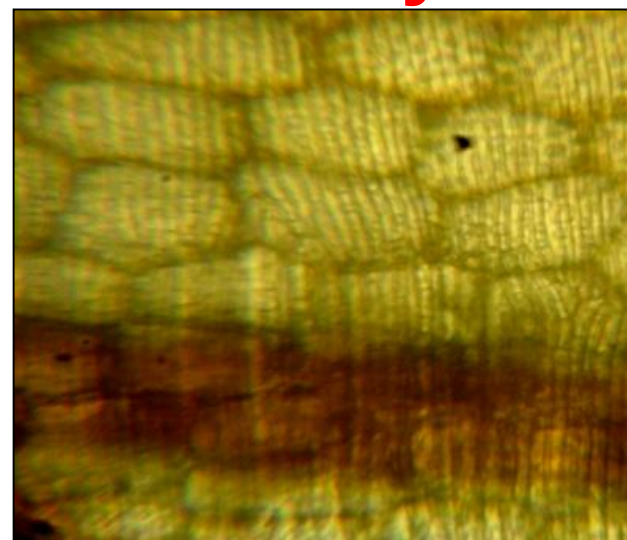


+

wavy crossed fibers



Porous layer **



+

Test for khellin



**Simple vittae,
no crossed fiber
& no porous layer.**

+

**pd + phloroglucin +
C. HCL
(red color)**

Fennel

★ **By exclusion**

**Non-glandular
Unicellular hairs**



Anise

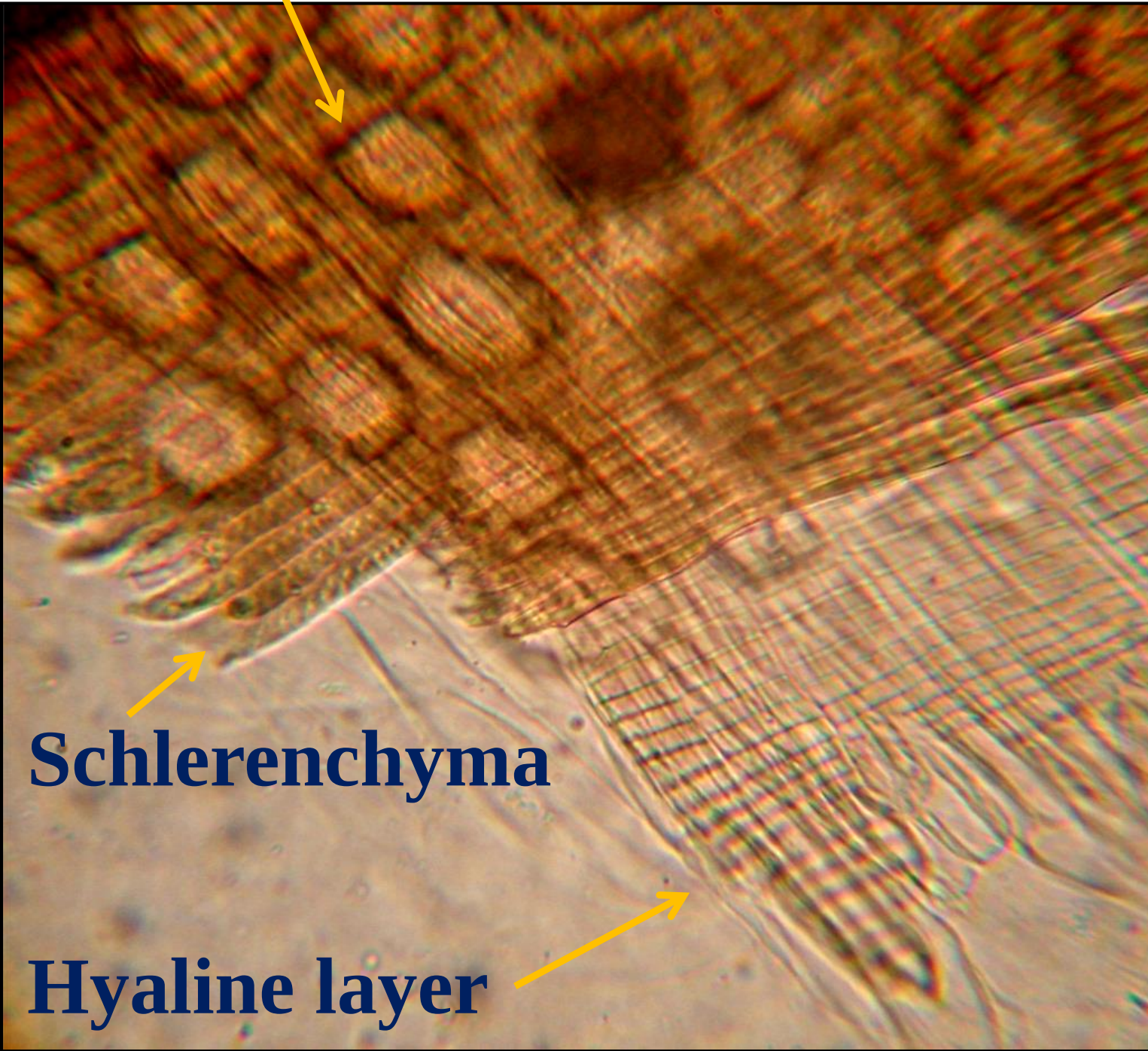
**pd + phloroglucin +
C. HCL
(red color)**

Coriander

Ammi visnaga

linseed

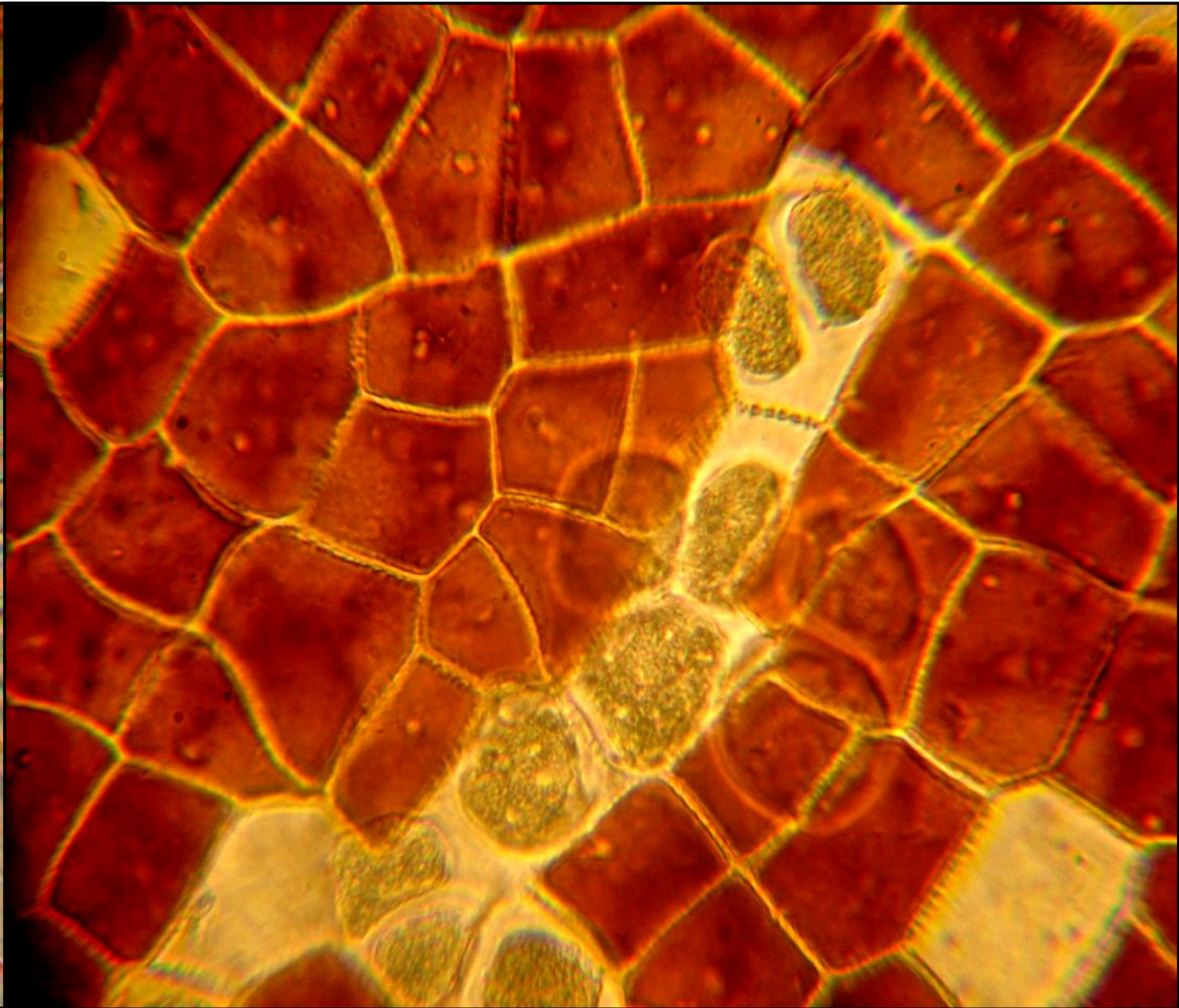
Hypodermis



Schlerenchyma

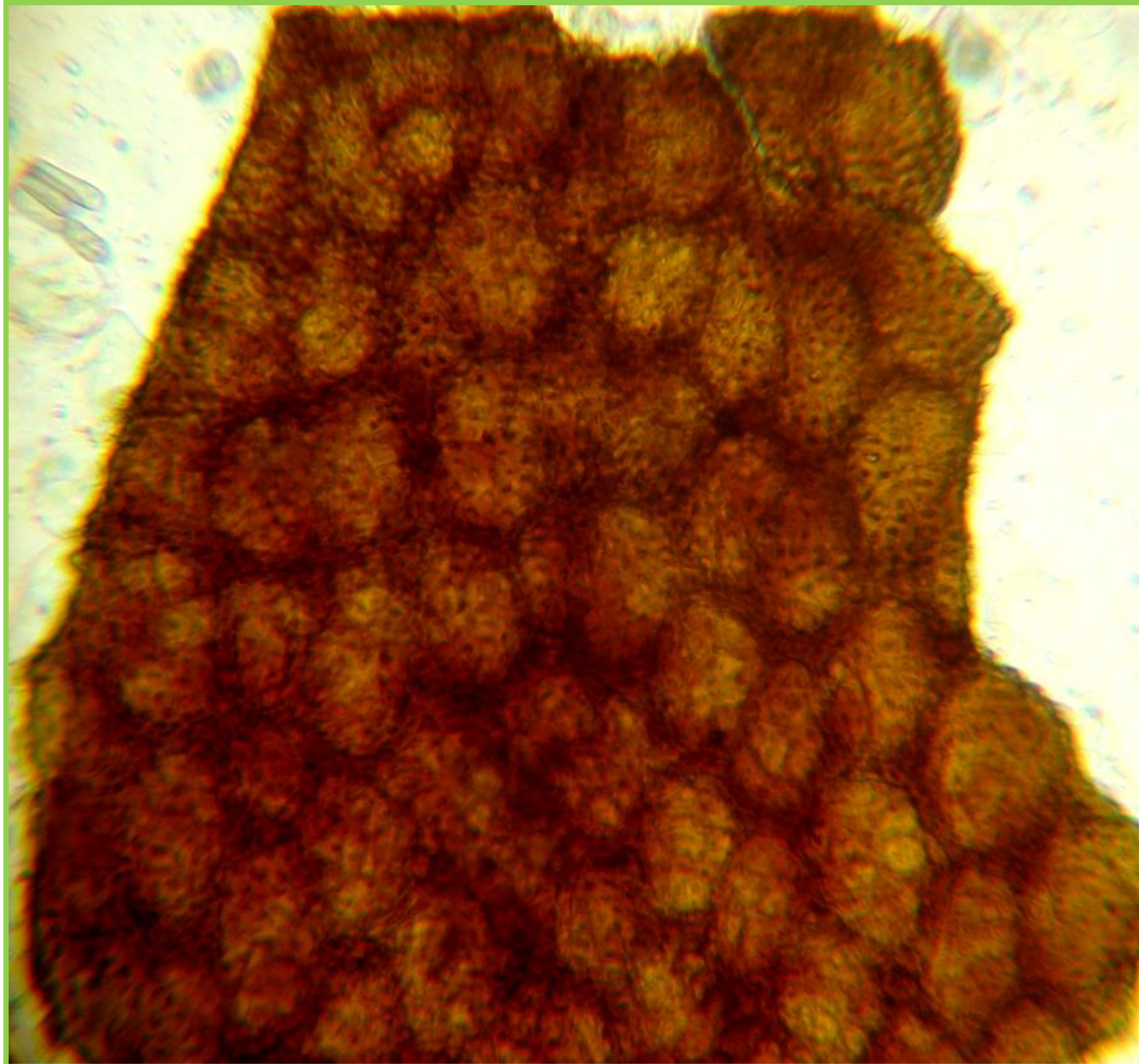
Hyaline layer

Mat-like structure**

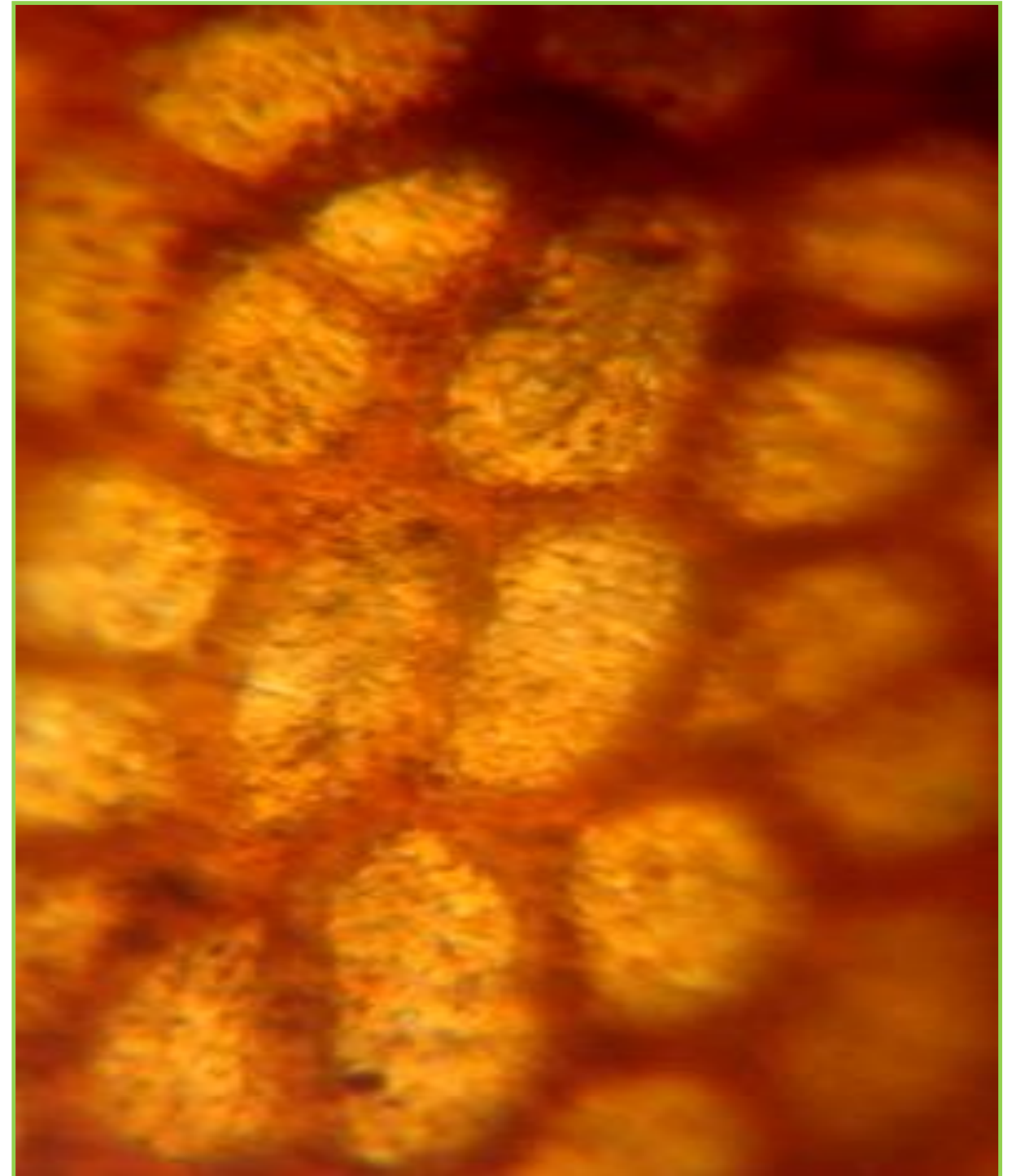


Pigment layer

Polygonal network (reticulation) **



- Low power

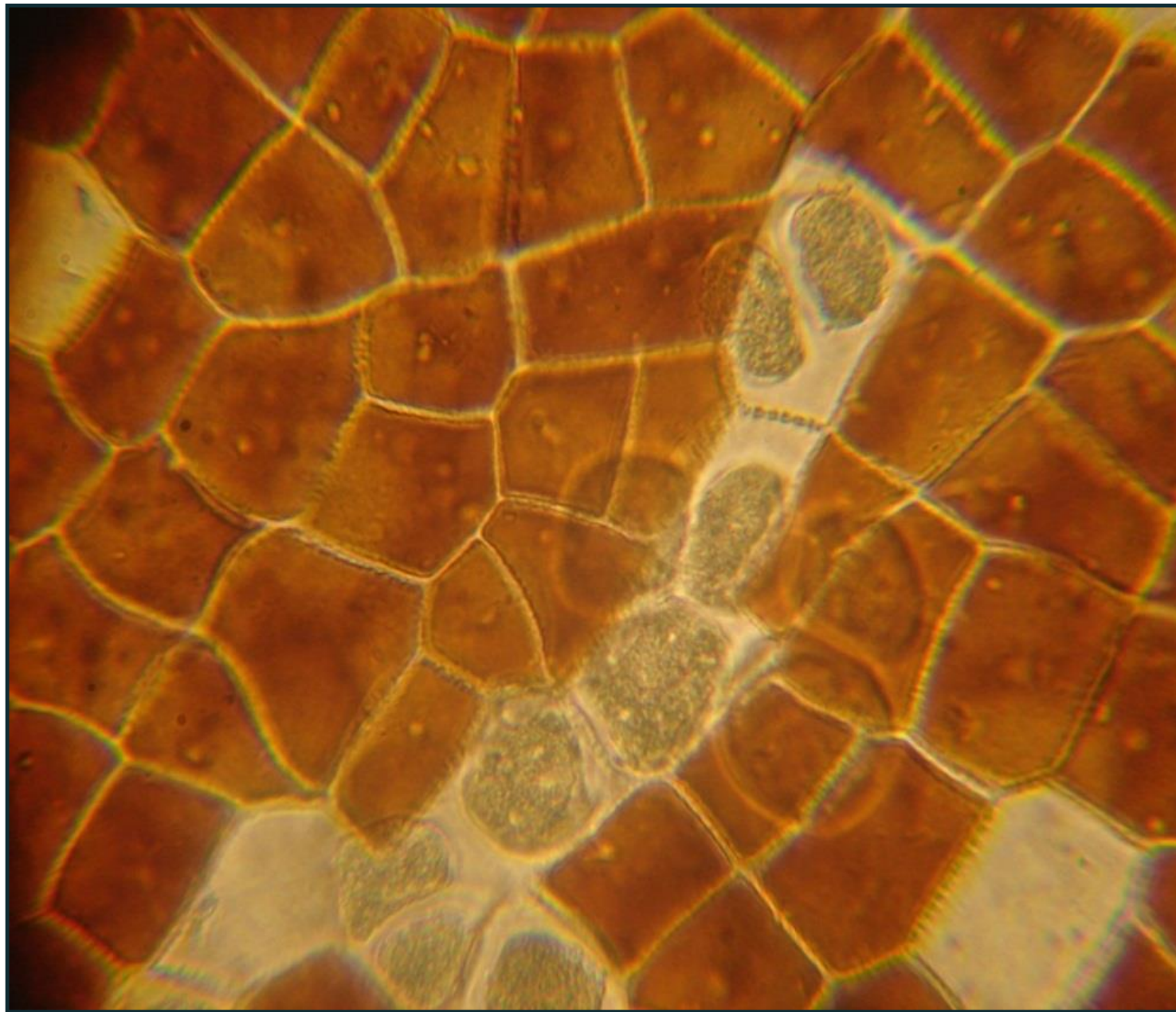


- High power

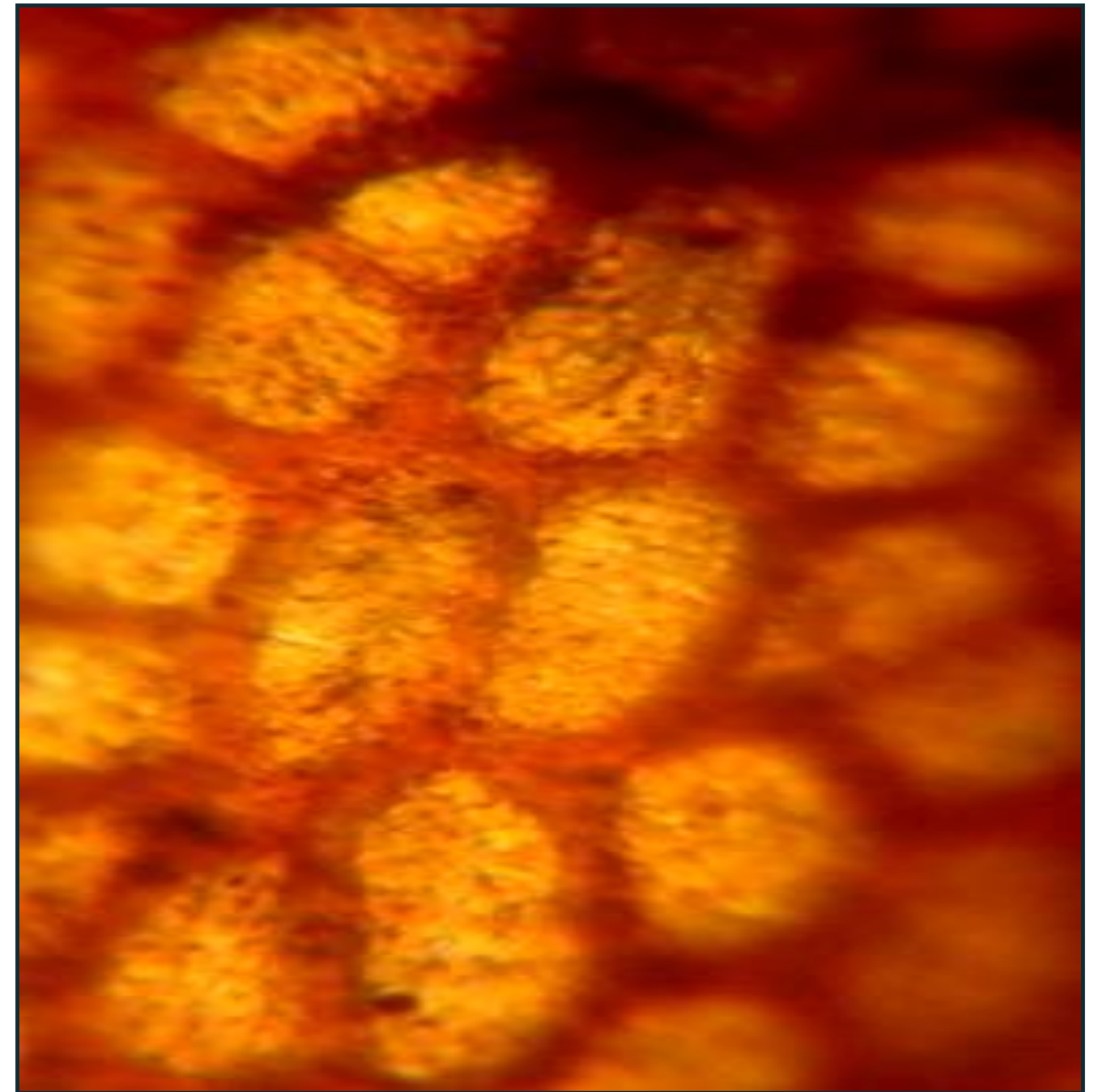
Black mustard



Do not get confused !!!



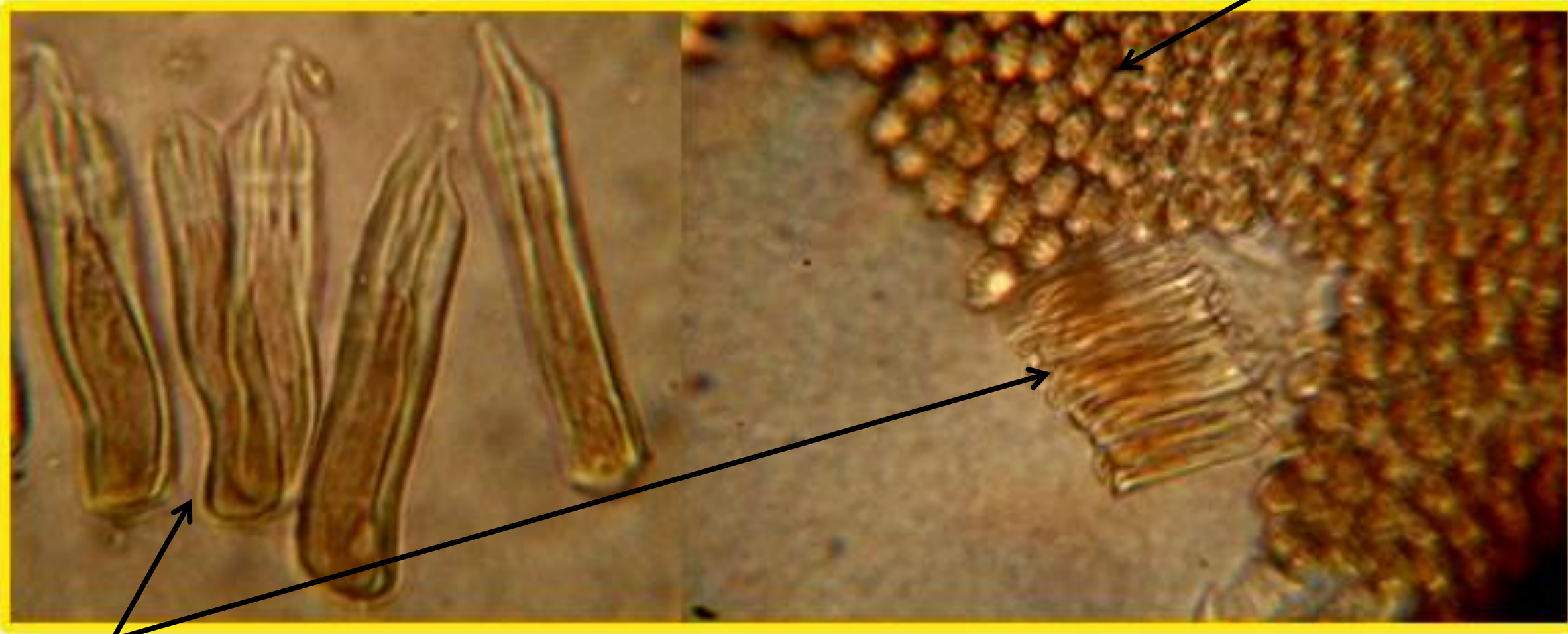
**Pitted Pigment layer
(linseed)**



**Polygonal network
(Polygonal reticulation)
(Black mustard)**

Foenugreek

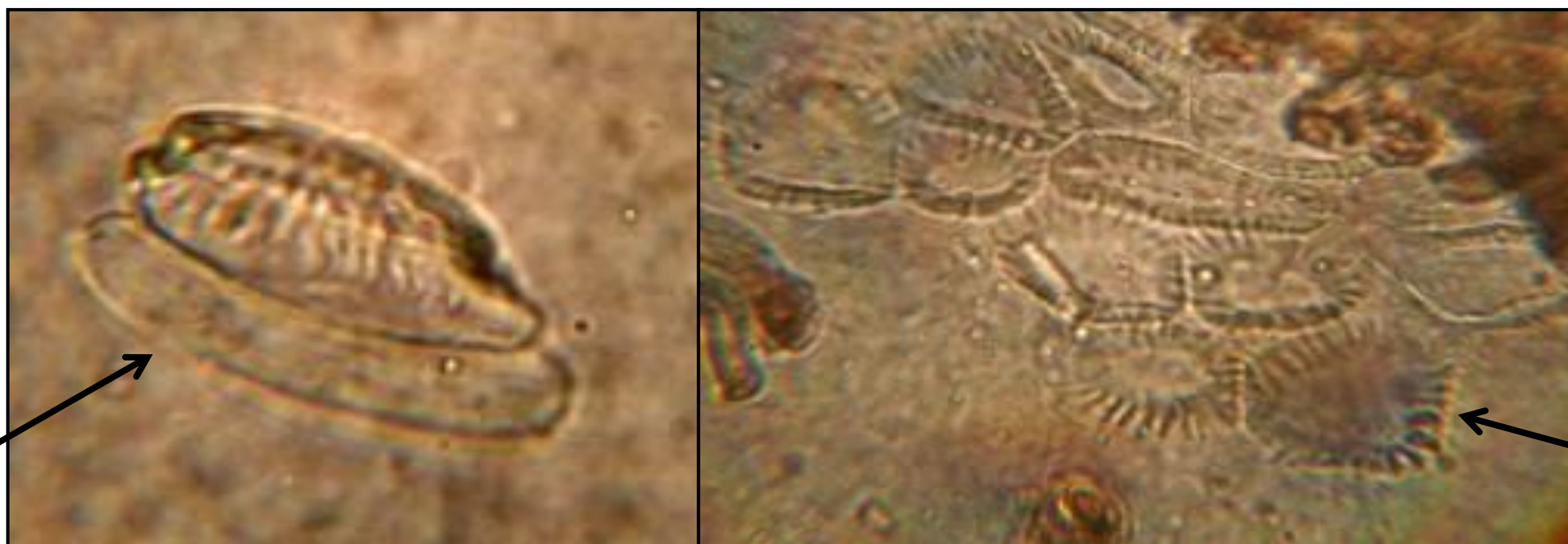
Basal view



Side view

Palisade-like epidermal cells**

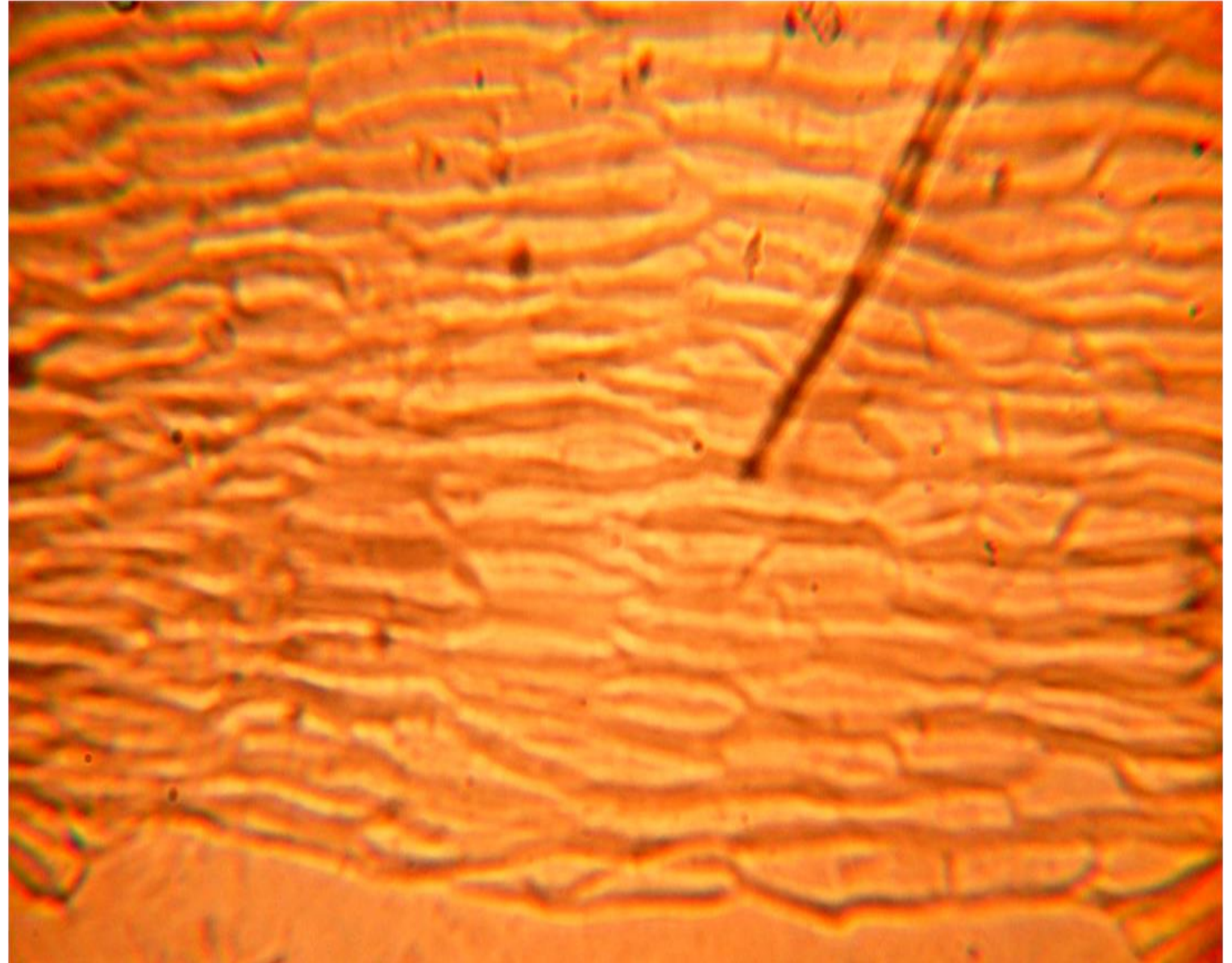
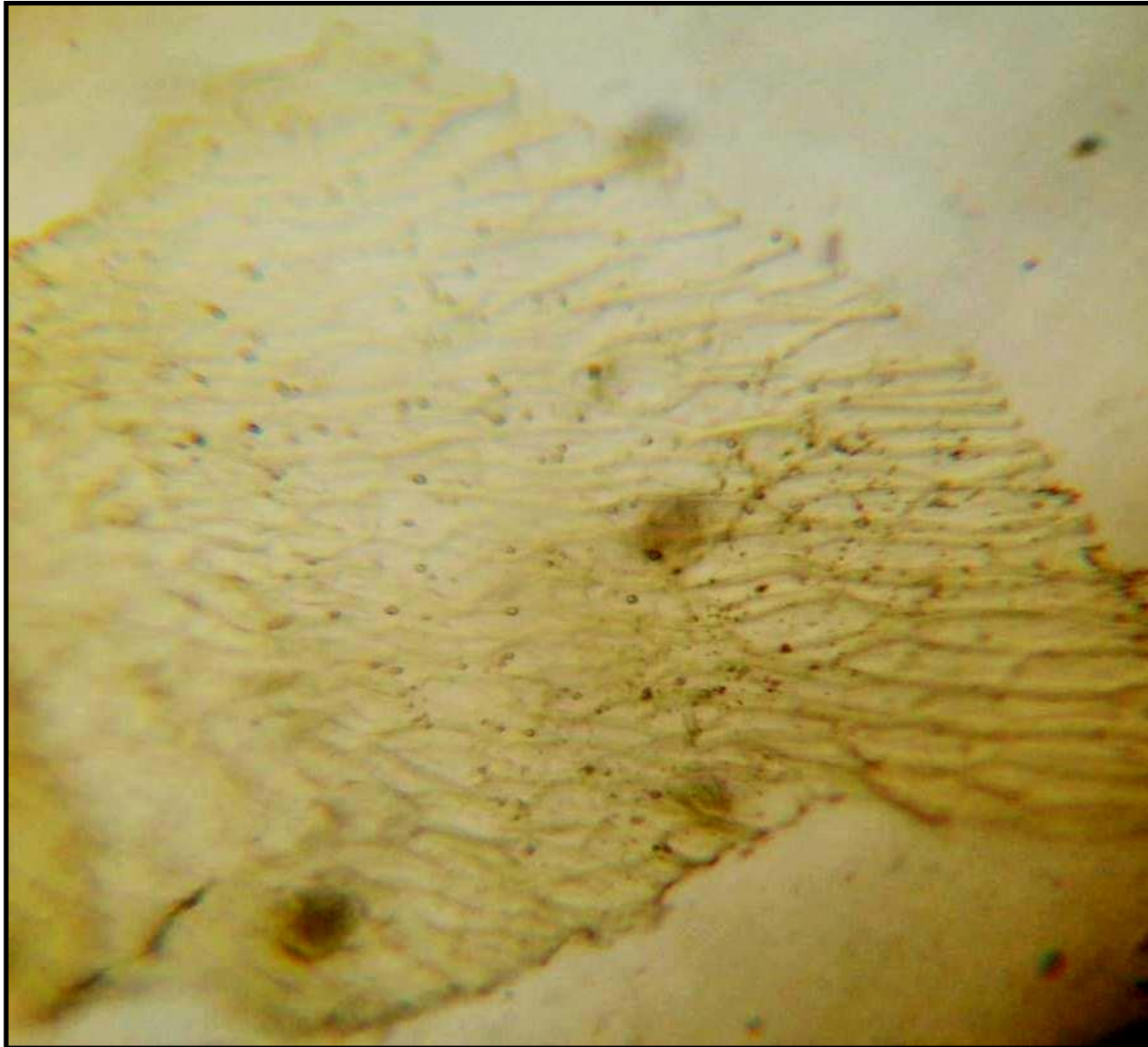
Side view



Surface view

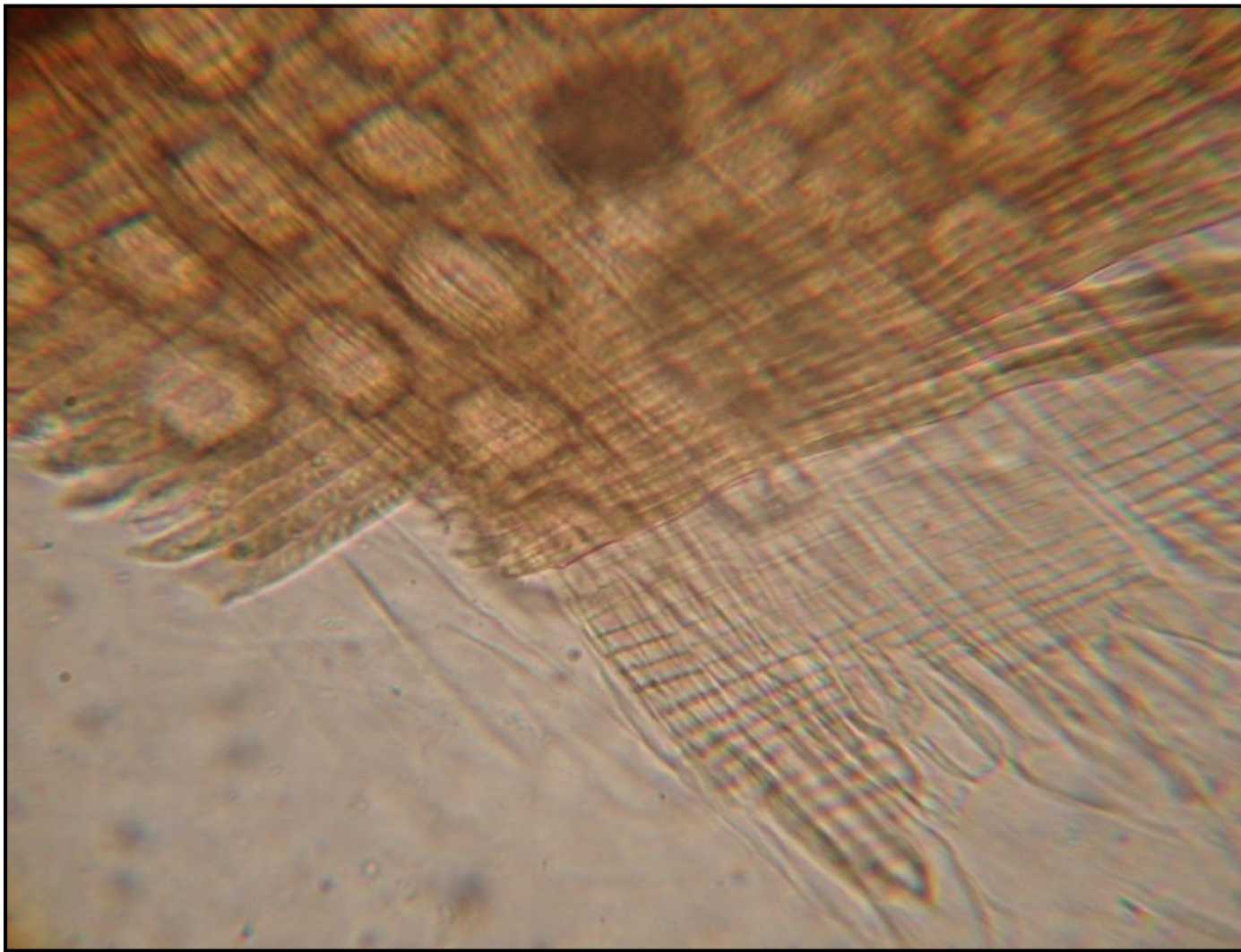
Basket-like hypodermal cells

Psyllium

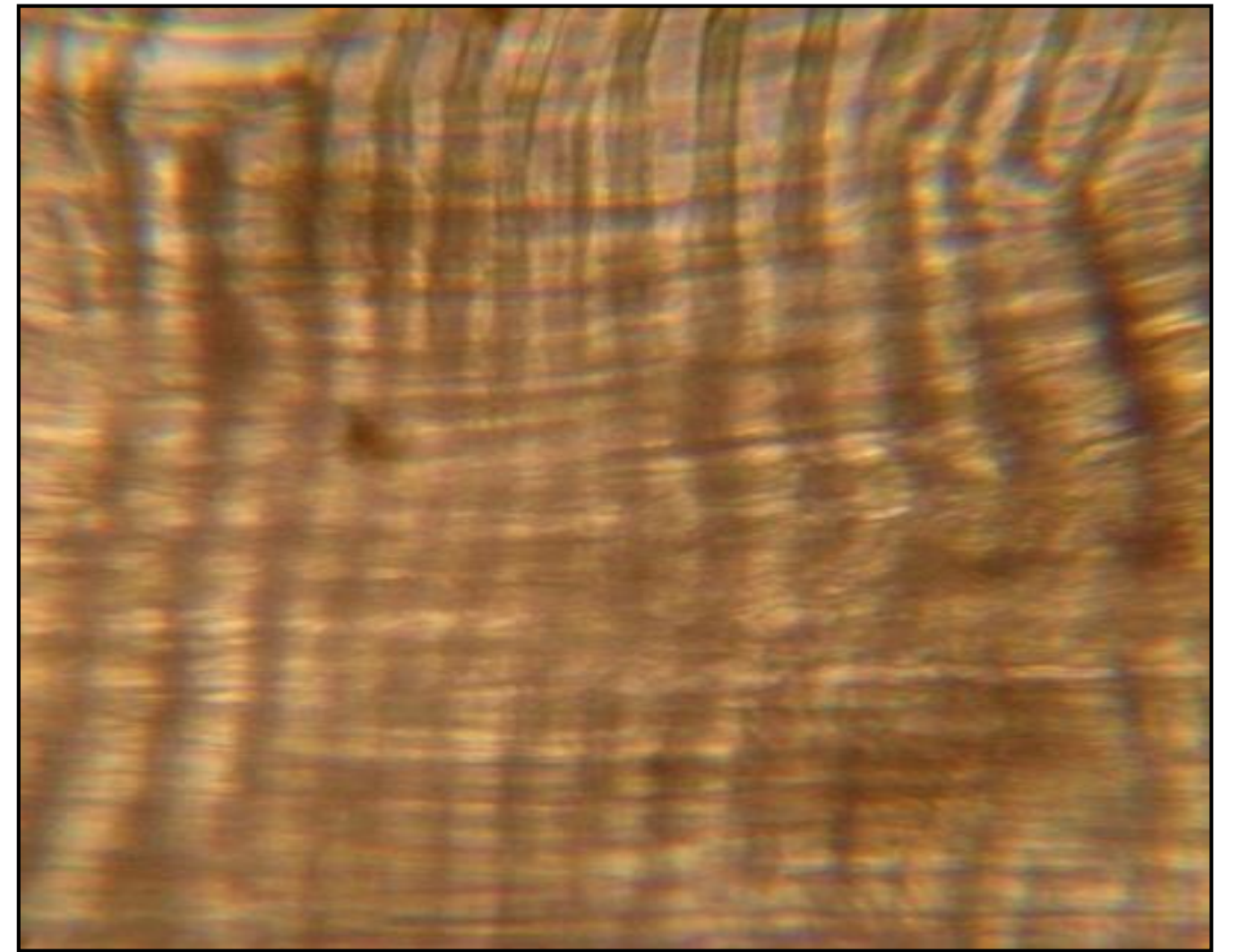


**Epidermis cell **
(ventral side)**

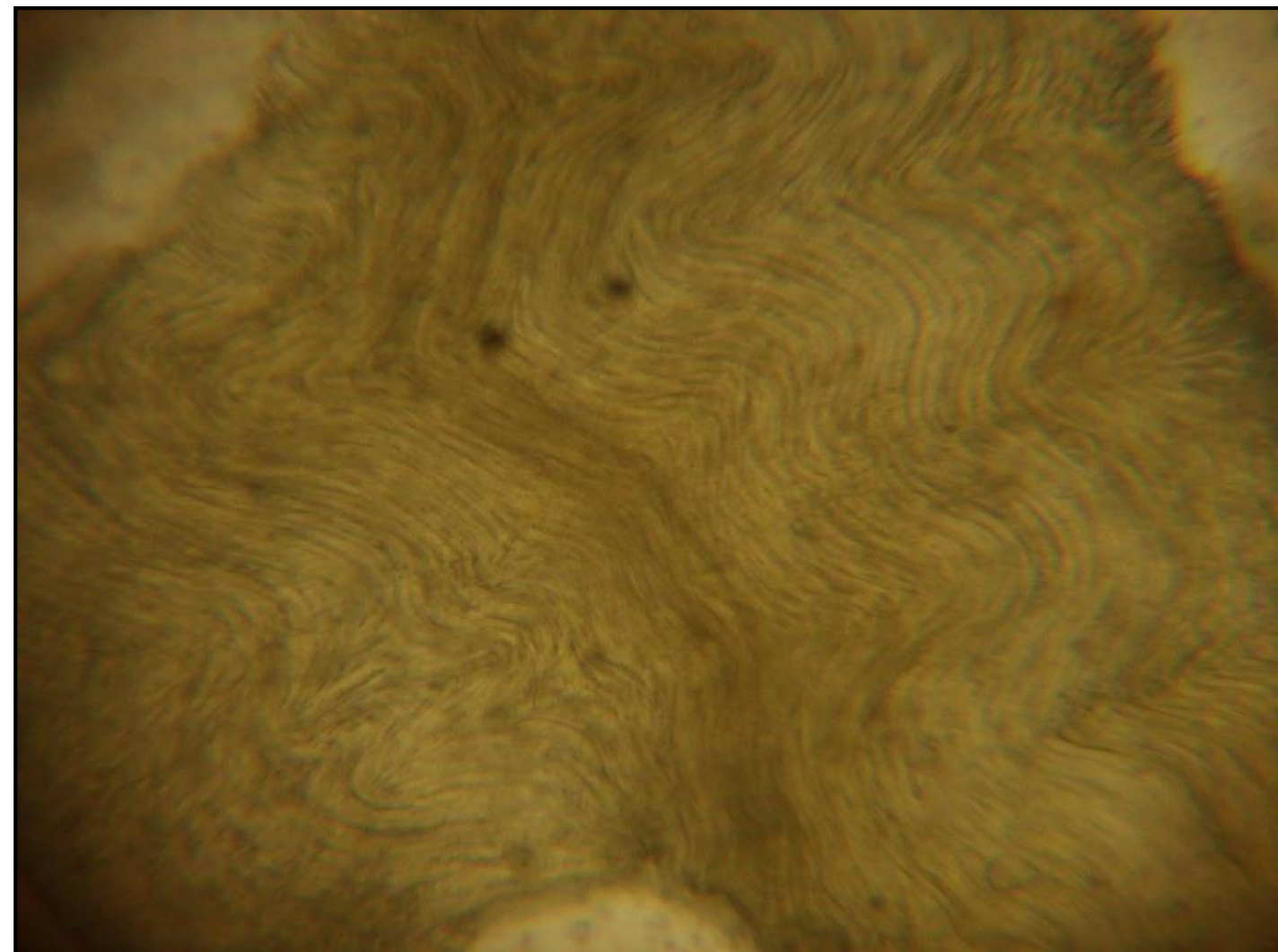
- Mucilagenous touch



Mat like structure (Linseed)



Crossed fiber (Senna)



Wavy crossed fiber (Coriander)